

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A magnetic powder comprising:

an alloy composition represented by $R_x(\text{Fe}_{1-y}\text{Co}_y)_{100-x-z-w}\text{B}_z\text{Nb}_w$ (where R is at least one rare-earth element that consists of Nd and Pr, x is 7.1 – 9.9 at%, y is 0 - 0.30, z is 4.6 – 6.9 at%, and w is 0.2 – 3.5 at%); and

the magnetic powder including a composite structure having a soft magnetic phase and a hard magnetic phase, the soft magnetic phase being constrained through the coupling of the surrounding hard magnetic phase so that the magnetic powder exhibits functions like a hard magnetic body,

wherein the magnetic powder has magnetic properties in which, when the magnetic powder is mixed with a binding resin and molded into an isotropic bonded magnet having a density ρ [Mg/m^3], a maximum magnetic energy product $(\text{BH})_{\text{max}}[\text{kJ}/\text{m}^3]$ at room temperature satisfies the relationship represented by the formula $(\text{BH})_{\text{max}}/\rho^2[\times 10^{-9}\text{J}\cdot\text{m}^3/\text{g}^2] \geq 2.2$, and an intrinsic coercive force (H_{CJ}) at room temperature is in the range of 320 - 720 kA/m.

2. (Previously Amended) The magnetic powder as claimed in claim 1, wherein when the magnetic powder is formed into an isotropic bonded magnet having a density ρ [Mg/m^3] by mixing with a binding resin and then molding, the remanent magnetic flux density $\text{Br}[\text{T}]$ at room temperature satisfies the relationship represented by the formula of $\text{Br}/\rho [\times 10^{-6}\text{T}\cdot\text{m}^3/\text{g}] \geq 0.125$.

3. (Currently Amended) ~~A~~ Magnetic powder composed of an alloy composition represented by $R_x(\text{Fe}_{1-y}\text{Co}_y)_{100-x-z-w}\text{B}_z\text{Nb}_w$ (where R is at least one rare-earth element that consists of Nd and Pr, x is 7.1 – 9.9at%, y is 0 – 0.30, z is 4.6 – 6.9at%, and w is 0.1 – 3.5at%), the magnetic powder being constituted from a composite structure having a soft magnetic phase and a hard magnetic phase, wherein the magnetic powder has magnetic properties in which, when the magnetic powder is formed into an isotropic bonded magnet having a density ρ [Mg/m^3] by mixing with a binding resin and then molding the remanent magnetic flux density $\text{Br}[\text{T}]$ at room temperature satisfies the relationship represented by the formula of $\text{Br}/\rho [\times 10^{-6} \text{T} \cdot \text{m}^3/\text{g}] \geq 0.125$.

4. (Previously Amended) The magnetic powder as claimed in claim 3, wherein when the magnetic powder is formed into an isotropic bonded magnetic by mixing with a binding resin and then molding, the intrinsic coercive force (H_{cj}) of the magnet at room temperature is in the range of 320 – 720 kA/m.

5. (Previously Amended) The magnetic powder as claimed in claim 1, wherein when the magnetic powder is formed into an isotropic bonded magnet by mixing with a binding resin and then molding the absolute value of the irreversible flux loss (initial flux loss) is equal to or less than 6.2%.

6. (Cancelled)

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7. (Currently Amended) The magnetic powder as claimed in claim 1, wherein ~~said R~~
~~includes Pr and~~ a ratio of Pr with respect to the total mass of said R is 5 – 75%.

8. (Cancelled)

9. (Previously Amended) The magnetic powder as claimed in claim 1,
wherein the magnetic powder has been obtained by quenching the alloy in a molten state.

10. (Previously Amended) The magnetic powder as claimed in claim 1, wherein the
magnetic powder has been obtained by milling a melt spun ribbon of the alloy produced on a
cooling roll.

11. (Previously Amended) The magnetic powder as claimed in claim 1,
wherein the magnetic powder has been subjected to a heat treatment for at least once during the
manufacturing process or after its manufacture.

12. (Previously Amended) The magnetic powder as claimed in claim 1,
wherein the average particle size of the magnetic powder lies in the range of 0.5 – 150 μm .

13. (Withdrawn) An isotropic bonded magnet formed by binding a magnetic powder
containing Nb with a binding resin, wherein the isotropic bonded magnet is characterized in that,
when the density of the isotropic bonded magnet is ρ [Mg/m^3], the maximum magnetic energy
product $(\text{BH})_{\text{max}}$ [KJ/m^3] at the room temperature satisfies the relationship represented by the

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formula $(BH)_{\max}/\rho^2 [\times 10^{-9} \text{J} \cdot \text{m}^3/\text{g}^2] \geq 2.2$, and the intrinsic coercive force (H_{cj}) of the bonded magnet at the room temperature is in the range of 320 – 720 kA/m.

14. (Withdrawn) The isotropic bonded magnet as claimed in claim 13, wherein when the density of the isotropic bonded magnet is ρ [Mg/m^3], the remanent magnetic flux density B_r [T] at the room temperature satisfies the relationship represented by the formula of $B_r/\rho [\times 10^{-6} \text{T} \cdot \text{m}^3/\text{g}] \geq 0.125$.

15. (Withdrawn) An isotropic bonded magnet formed by binding a magnetic powder containing Nb with a binding resin, wherein the isotropic bonded magnet is characterized in that, when the density of the isotropic bonded magnet is ρ [Mg/m^3], the remanent magnetic flux density B_r [T] at the room temperature satisfies the relationship represented by the formula of $B_r/\rho [\times 10^{-6} \text{T} \cdot \text{m}^3/\text{g}] \geq 0.125$.

16. (Withdrawn) The isotropic bonded magnet as claimed in claim 15, wherein the intrinsic coercive force (H_{cj}) of the bonded magnet at the room temperature is in the range of 320 – 720 kA/m.

17. (Withdrawn) The isotropic bonded magnet as claimed in any of claims 13 to 16, wherein said magnetic powder is formed of R-TM-B-Nb based alloy (where R is at least one rare-earth element and TM is a transition metal containing Iron as a major component thereof).

18. (Cancelled)

19. (Withdrawn) The isotropic bonded magnet as claimed in claim 17 or 18, wherein said R comprises rare-earth elements mainly containing Nd and/or Pr.

20. (Withdrawn) The isotropic bonded magnet as claimed in any one of claims 17 to 19, wherein said R includes Pr and its ratio with respect to the total mass of said R is 5 – 75%.

21. (Withdrawn) The isotropic bonded magnet as claimed in any one of claims 17 to 20, wherein said R includes Dy and its ratio with respect to the total mass of said R is equal to or less than 14%.

22. (Withdrawn) The isotropic bonded magnet as claimed in claim 13, wherein the average particle size of the magnetic powder lies in the range of 0.5 – 150 μm .

23. (Withdrawn) The isotropic bonded magnet as claimed in claim 13, wherein the absolute value of the irreversible flux loss (initial flux loss) is equal to or less than 6.2%.

24. (Withdrawn) The isotropic bonded magnet as claimed in claim 13, wherein the magnetic powder is constituted from a composite structure having a soft magnetic phase and a hard magnetic phase.

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25. (Withdrawn) The isotropic bonded magnet as claimed in claim 13, wherein the isotropic bonded magnet is to be subjected to multipolar magnetization or has already been subjected to multipolar magnetization.

26. (Withdrawn) The isotropic bonded magnet as claimed in claim 13, wherein the isotropic bonded magnet is used for a motor.

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